



U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

89167-53

Date of Issuance:

10/16/15

NOTICE OF PESTICIDE:

Registration  
 Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Unconditional

Name of Pesticide Product:

AX – Mesotrione SC

Name and Address of Registrant (include ZIP Code):

Axion AG Products, LLC  
4850 Hahns Peak Drive, Suite 200  
Loveland, CO 80538

**Note:** Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is unconditionally registered in accordance with FIFRA section 3(c)(5) provided that you:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Heather Garvie, Product Manager 24  
Fungicide and Herbicide, Registration Division (7505P)

Date:

10/16/15

2. Make the following label changes before you release the product for shipment:
  - Revise the EPA Registration Number to read, “EPA Reg. No. 89167-53.”
3. Submit one copy of the revised final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company’s website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product’s label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA’s Office of Enforcement and Compliance.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6. Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 08/24/2015

If you have any questions, please contact Lisa Pahl by phone at 703-347-0459, or via email at [pahl.lisa@epa.gov](mailto:pahl.lisa@epa.gov).

Enclosure

# AX Mesotrione SC

<b>Active Ingredient:</b>	<b>By Weight</b>
Mesotrione: 2-[4-(methylsulfonyl)-2-nitrobenzoyl]-1,3-cyclohexanedione.....	40.0%
<b>Other Ingredients:</b> .....	<u>60.0%</u>
<b>TOTAL:</b> .....	<b>100.0%</b>

Contains 4 lbs. active ingredient mesotrione per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION

FIRST AID	
<b>IF SWALLOWED</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>Do not give anything to an unconscious person.</li> </ul>
<b>IF ON SKIN OR CLOTHING</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15 20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF INHALED</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth to mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF IN EYES</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15 20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment.	
HOT LINE NUMBER	
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For 24 Hour Medical Emergency Assistance (Human or Animal) call: <b>1-800-222-1222</b> . For Chemical Emergency Assistance (Spill, Leak, Fire, or Accident) call CHEMTREC: <b>1-800-424-9300</b> .	

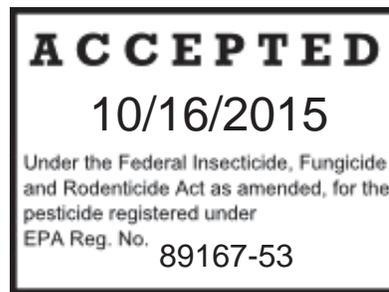
**EPA Reg. No.: 89167-XX**

**EPA Est. No.:**

**Net Contents:** \_\_\_ Gal. ( \_\_\_ L)

**Manufactured For:**

Axion Ag Products LLC  
4850 Hahns Peak Drive  
Suite 200  
Loveland, CO 80538



## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals CAUTION

Harmful if swallowed, or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

### Personal Protection Equipment (PPE)

Some materials that are chemical resistant to this product are listed below.

#### Applicators and Other Handlers much wear:

- Long sleeved shirt and long pants
- Shoes plus socks
- Chemical Resistant gloves (e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC), or Viton  $\geq$  14 mils)

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

## USER SAFETY RECOMMENDATIONS

### Users should:

- Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. Remove and wash contaminated clothing before reuse.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

## Engineering Control Statements

When handlers use closed systems or enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## Environmental Hazards

Do not apply directly to water or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment wash water or rinsate.

## Surface Water Advisory

This product may contaminate water through drift or spray in wind. This product has a high potential for runoff for several weeks after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination of water from runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

## Physical and Chemical Hazards

Do not use or store near heat or open flame.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE) and restricted entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.**

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil or water, is:

- coveralls
- shoes plus socks
- chemical resistant gloves (Category A e.g., barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride (PVC), or Viton  $\geq$  14 mils)

### PRODUCT INFORMATION

**AX Mesotrione SC** is a systemic pre emergence and post emergence herbicide for selective contact and residual control of broadleaf weeds in cranberry, field corn, seed corn, yellow popcorn, sweet corn, sorghum (grain and sweet), and sugarcane. If used pre emergence, weeds take up the product through the soil during emergence. Dry weather conditions can reduce pre-emergent effectiveness of **AX Mesotrione SC**. If at least  $\frac{1}{4}$  inch of rainfall does not occur within 7 to 10 days of application, rotary hoeing will activate the product. If used post emergence weeds take up the product through treated foliage and stop growing soon after application. It may take up to two weeks for weeds to die. **AX Mesotrione SC** is absorbed by soil and/or through foliage of emerged weeds.

**AX Mesotrione SC** will not control most species of grass weeds. **AX Mesotrione SC** can be tank mixed with other herbicides registered to control grass weeds (see tank mix information in this label for additional information).

**AX Mesotrione SC** can be used in combination with a burndown herbicide prior to planting to provide weed control in field corn, seed corn, yellow popcorn, and sweet corn.

### RESISTANCE MANAGEMENT

Naturally occurring biotypes of certain broadleaf weed species have become resistant to triazines, glyphosate, PPO, HPPD, and ALS inhibiting herbicides. The effectiveness of **AX Mesotrione SC** is not affected by the presence of biotype weed species that are resistant to triazines, glyphosate, PPO or ALS inhibiting herbicides.

To prevent the risk of weeds developing resistance to **AX Mesotrione SC** in corn, always use full specified label rates. When applying **AX Mesotrione SC** post emergence after a mesotrione containing pre emergence herbicide, always add atrazine as a tank mix partner. Do not apply more than 0.24 lb. of mesotrione active ingredient must be applied per acre of corn per year (equivalent to 7.7 fl. oz. per acre per year of **AX Mesotrione SC**). If additional herbicide must be applied, use an herbicide with a different mode of action—a product other than a HPPD inhibitor (Group 27 Herbicide). Apply **AX Mesotrione SC** at full label rates to prevent selection for, or population shifts toward, marginally tolerant weed species and/or species biotypes.

### INTEGRATED PEST (WEED) MANAGEMENT

Integrate **AX Mesotrione SC** into an overall weed and pest management strategy whenever the use of an herbicide is required. Practices known to reduce weed development (tillage, crop competition) and herbicide use (weed scouting, proper application timing, banding) should be followed wherever possible. Consult local agricultural and weed authorities for additional IPM strategies established for your area.

### AX Mesotrione SC Use Precautions

- Severe corn injury can result from post emergent application of **AX Mesotrione SC** to corn treated with Counter® or Lorsban®.
- Severe corn injury and/or yield loss can occur if foliar post emergent applications of **AX Mesotrione SC** are made to corn in a tank mix with any organophosphate or carbamate insecticide.

- Severe corn injury and/or yield loss can occur if an organophosphate or carbamate insecticide is applied foliar post emergence within 7 days before or 7 days after **AX Mesotrione SC** application.
- When weeds are stressed due to drought, heat, lack of fertility, flooding, or prolonged cool temperatures control can be reduced or delayed since the weeds are not actively growing. Weed escapes or regrowth may occur when application is made under prolonged stress conditions. Optimum weed control will be obtained if an application of **AX Mesotrione SC** is made following label directions when weeds are actively growing.
- **AX Mesotrione SC** may be applied with pyrethroid type insecticides (e.g., Warrior®)

#### **AX Mesotrione SC Use Restrictions**

- **DO NOT** apply this product to white popcorn or ornamental (Indian) corn.
- **DO NOT** cultivate corn within 7 days before or after an **AX Mesotrione SC** application as weed control from the **AX Mesotrione SC** application may be reduced.
- **DO NOT** apply this product through any type of irrigation system unless specified otherwise under the specific crop section of the label.
- **DO NOT** apply **AX Mesotrione SC** with suspension fertilizers as the carrier.
- **DO NOT** apply **AX Mesotrione SC** post emergence in a tank mix with emulsifiable concentrate grass herbicides, unless specifically addressed under one of the tank mix sections of this label, or crop injury can occur.
- **DO NOT** make aerial applications of **AX Mesotrione SC** unless otherwise specified in the specific crop directions of this label.

#### **SPRAY DRIFT RESTRICTIONS**

- Do not allow **AX Mesotrione SC** to drift to adjacent crops and nontarget areas.
- Do not apply when weather conditions can cause drift to nontarget areas to avoid injury to adjacent crops and vegetation.
- Do not apply when wind speed is greater than 10 mph or during a temperature inversion.
- Do not use nozzles that produce fine medium size droplets. Use larger droplet sizes to avoid spray drift.

#### **AVOIDING SPRAY DRIFT AT THE APPLICATION SITE IS THE RESPONSIBILITY OF THE APPLICATOR.**

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions.

#### **Importance of Droplet Size**

The most effective way to reduce drift potential is to apply large droplets (>200 microns). The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. APPLYING LARGER DROPLETS REDUCES DRIFT POTENTIAL, BUT MAY NOT PREVENT DRIFT IF APPLICATIONS ARE MADE IMPROPERLY OR UNDER UNFAVORABLE ENVIRONMENTAL CONDITIONS! See the Aerial Application section for specific instructions regarding droplet size.

#### **Controlling Droplet Size - General Techniques**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures specified for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. WHEN HIGHER FLOW RATES ARE NEEDED, USE A HIGHER CAPACITY NOZZLE INSTEAD OF INCREASING PRESSURE.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low drift nozzles. Use the minimum number of nozzles that provide uniform coverage.

### **Sensitive Areas**

Apply **AX Mesotrione SC** when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, nontarget crops) is minimal (e.g., when wind is blowing away from sensitive areas).

#### **SPRAY DRIFT PRECAUTIONS FOR AERIAL APPLICATION TO CORN & SUGARCANE ONLY**

The distance of the outer most nozzles on the boom must not exceed  $\frac{3}{4}$  the length of the wingspan or rotor.

Nozzles must always point backward parallel with the air stream and never be pointed downwards more than 45 degrees. Where states have more stringent regulations, they must be observed.

Spray must be released at the lowest height consistent with effective weed control and flight safety.

For best results, each specific aerial application vehicle used must be quantifiably pattern tested for aerial application of **AX Mesotrione SC** initially and every year thereafter.

#### **RESTRICTION: FOR AERIAL APPLICATION USE ONLY NOZZLES PRODUCING COARSE ULTRA COARSE DROPLETS. DO NOT USE NOZZLES PRODUCING FINE MEDIUM SIZE DROPLETS.**

For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

Do not make applications at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller drops, etc.).

Drift potential is lowest between wind speeds of 2-10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Application should be avoided below 2 mph due to variable wind direction and high inversion potential.

**NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

When making application in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

Do not make applications during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

Apply **AX Mesotrione SC** when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat, for threatened or endangered species, non target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

## **AERIAL APPLICATION INSTRUCTIONS FOR CORN AND SUGARCANE**

Aerial application of **AX Mesotrione SC** is permitted on **corn and sugarcane only**.

Make aerial application with nozzles that produce coarse or ultra-coarse droplets. DO NOT use nozzles producing fine medium size droplets.

**AX Mesotrione SC** is approved for aerial application for pre emergence and post emergence control in corn in the states of: **Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Nebraska, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.**

**AX Mesotrione SC** is approved for aerial application for pre emergence and post emergence control in sugarcane in the states of: **Florida, Louisiana, and Texas.**

Make aerial applications in a minimum of 2 gallons water per acre.

### **PRE EMERGENCE GROUND APPLICATION INSTRUCTIONS**

Apply **AX Mesotrione SC** pre emergence with a carrier volume of 10 to 60 gals./A.

Space the spray nozzles of the same size and type uniformly to provide accurate and uniform coverage. Use medium to coarse droplet size nozzles to ensure coverage and avoid drift. Apply in a spray volume of 10 to 60 gals./A with water or liquid fertilizer (NOT suspension fertilizer) as the carrier. Use a pump that will maintain pump pressure of 35 to 40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures can be used with extended range or drift reduction nozzles.

Maintain constant agitation until spraying is complete, even if stopping for brief periods of time. If agitation is stopped for longer than 5 minutes, resuspend the spray solution by running on full agitation prior to spraying.

### **POST EMERGENCE GROUND APPLICATION INSTRUCTIONS**

Space the spray nozzles of the same size and type uniformly to provide accurate and uniform coverage. Use medium to coarse droplet size nozzles to ensure coverage and avoid drift. Complete weed coverage is essential for optimum weed control. Boom height for broadcast over the top applications must be based on the height of the crop, at least 15 inches above the crop canopy.

Apply in a spray volume of 10 to 30 gals./A with water as the carrier. Use a pump that will maintain pump pressure of 35 to 40 psi at the nozzles and provide proper agitation within the tank to keep the product dispersed. Lower pressures can be used with extended range or drift reduction nozzles. If weed foliage is dense, use a minimum of 20 gals. Apply with flat fan nozzles 80° to 100° for optimum post emergent coverage. Do not use flood jet nozzles or controlled droplet application equipment for post emergence applications.

Angle nozzles forward 45° to enhance product penetration and provide better coverage. In line strainers and nozzle screens must be a minimum of 50 mesh or coarser.

Maintain constant agitation until spraying is complete, even if stopping for brief periods of time. If agitation is stopped for longer than 5 minutes, resuspend the spray solution by running on full agitation prior to spraying.

### **USE DIRECTIONS WITH SPRAY ADDITIVES**

#### **Postemergence Adjuvants**

**AX Mesotrione SC** can be tank mixed with 1.0% v/v Crop Oil Concentrate (COC) to the spray solution or 0.25% v/v of a nonionic surfactant (NIS).

### **Adjuvant Use Post Emergence to Field and Seed Corn**

After corn has emerged, add 1.0 gal./100 gals. of water (1.0% v/v) Crop Oil Concentrate (COC) to the spray solution. 1 qt./100 gals. of water (0.25% v/v) of a nonionic surfactant (NIS) can be used, but better weed control is achieved with the use of a COS versus a NIS.

DO NOT use methylated seed oil (MSO) or MSO adjuvant blends for post emergence applications of **AX Mesotrione SC** or severe crop injury can occur. DO NOT use MSO adjuvants unless it is specifically permitted in the **AX Mesotrione SC Tank Mixtures for Corn** section of this label, or if permitted by a state specific supplemental label.

In addition to COC, add 2.5% (v/v) a spray grade UAN (e.g., 28 0 0) to the spray solution, or 8.5 lbs./100 gals. AMS, except if precluded elsewhere on this label or a state specific supplemental label.

### **Adjuvant Use Post Emergence to Sweet and Yellow Corn**

DO NOT use UAN or AMS on sweet and yellow corn as severe crop injury can occur.

Use a nonionic surfactant (NIS) instead of a COC to reduce the likelihood of crop injury. COCs will maximize weed control under dry growing conditions, but will significantly injure crops under lush growing conditions. To optimize weed control, add atrazine wherever rotational or local atrazine restrictions allow.

### **Pre Emergence Adjuvant Use**

Any adjuvant approved for use on agriculture is permitted when making **AX Mesotrione SC** pre plant or pre emergence applications. MSO adjuvants perform better than COC and NIS adjuvants under pre plant/pre emergence conditions. UAN and AMS adjuvants will provide better weed control than not using any adjuvant. If **AX Mesotrione SC** is being tank mixed with another registered herbicide, refer to the tank mix partner label for adjuvant precautions and restrictions.

### **SPRAY EQUIPMENT CLEANING**

Follow the procedures below for cleaning equipment before spraying a crop other than corn. Mix only as much spray solution as is needed.

- 1) Flush tank, hoses, boom, and nozzles with clean water.
- 2) Prepare cleaning solution of 1 gal. of household ammonia per 25 gals. of water. Commercial spray tank cleaners can be used in lieu of ammonia/water solution.
- 3) Using a pressure washer, clean the inside of the spray tank with the cleaning solution. Wash ALL parts of the tank, including the inside top surface. If a pressure washer is not available, fill the sprayer with the cleaning solution to ensure contact of the cleaning solution with all internal surfaces of the tank and plumbing. Start agitation in the spray and recirculate the cleaning solution for a minimum of 15 minutes. All visible deposits of spray solution must be removed from the spray tank before making any other applications.
- 4) Flush hoses, spray lines, and nozzles with cleaning solution for a minimum of 1 minute.
- 5) Dispose of rinsate from steps 1-3 in an appropriate manner.
- 6) Repeat steps 2-5.
- 7) Remove nozzles, screens, and strainers and clean separately in the ammonia solution after completing the previous steps.
- 8) Rinse the complete spray system with clean water.

### **MIXING INSTRUCTIONS**

See the **Crop Use Directions** sections of the label for specific tank mix instructions.

Always refer to labels of other pesticide products for mixing directions and precautions which may differ from those outlined here. Use in accordance with the most restrictive label limitations and precautions.

### **MIXING RESTRICTIONS**

- DO NOT exceed any dosage rates specified on labels.
- DO NOT mix this product with any product containing a label prohibition against such mixing.

- DO NOT tank mix **AX Mesotrione SC** with any other insecticide, fungicide, fertilizer, or adjuvant not specified on this label without first testing compatibility, as poor mixing can occur. Test compatibility on a small scale (such as a jar test) before actual tank mixing.

#### **MIXING PROCEDURE**

1. Use sprayers in good operating condition with good agitation. Ensure that the sprayer is cleaned according to the label instructions of the product label used prior to **AX Mesotrione SC**. For post emergence applications, use clean water only for the spray solution. Ensure that all in line strainers and nozzle screens in the sprayer are 50 mesh or coarser. DO NOT use screens finer than 50 mesh.
2. Use liquid fertilizer (NOT suspension fertilizer) as the carrier for pre emergence applications.
3. Start filling spray tank or pre mix tank with clean water and begin agitation. Maintain constant agitation.
4. When sprayer or pre mix is half full of water, add AMS, maintaining agitation until dispersed.
5. Add **AX Mesotrione SC** slowly and agitate until completely dissolved. Wait at least 1 minute after the last of the **AX Mesotrione SC** has been added to allow for complete dispersion. If using cold water, a longer agitation period may be required to ensure adequate dispersing.
6. If tank mixing, add the tank mix product.
7. Add the adjuvant and UAN, if needed, and continue to fill tank to desired level with water.

#### **AX MESOTRIONE SC WEED CONTROL TABLES**

Partial control means either erratic control (good to poor control) or control that is below what is generally accepted as acceptable control for commercial weed control.

For best post emergence results, apply **AX Mesotrione SC** to actively growing weeds.

For best pre emergence results, avoid applying **AX Mesotrione SC** in dry weather as residual weed control may be reduced. If irrigation is available, apply ½ 1 inch water after pre emergence application. If irrigation is not available, make a uniform shallow cultivation as soon as weeds emerge.

**AX Mesotrione SC** applied alone or in a tank mix with atrazine will not provide consistent or adequate control of weeds that are resistant to post emergence HPPD inhibiting herbicides. Refer to the crop sections of the label for specific use directions and application rates.

**Table 1. Weeds Controlled with Post Emergence Applications of AX Mesotrione SC**

Common Name	Scientific Name	AX Mesotrione SC 3 Fl. Oz./A Applied Alone	AX Mesotrione SC 2.5 - 3.0 Fl. Oz./A + Atrazine
		Apply to Weeds <5" Tall^	
Amaranth, palmer	<i>Amaranthus palmeri</i>	Pc <sup>+</sup>	c <sup>+</sup>
Amaranth, powell	<i>Amaranthus powellii</i>	c	c
Amaranth, spiny	<i>Amaranthus spinosus</i>	c	c
Atriplex	<i>Chenopodium orach</i>	c	c
Broadleaf signalgrass	<i>Urochloa platyphylla</i>	c <sup>+</sup>	c <sup>+</sup>
Buckwheat, wild	<i>Polygonum convolvulus</i>	Pc	Pc
Buffalobur	<i>Solanum rostratum</i>	c	c
Burcucumber	<i>Sicyos angulatus</i>	Pc	c <sup>+</sup>
carpetweed	<i>Mollugo verticillata</i>	c	c
carrot, wild	<i>Daucus carota</i>	Pc	c
chickweed, common	<i>Stellaria media</i>	c	c
cocklebur, common	<i>Xanthum strumarium</i>	c	c
crabgrass, large	<i>Digitaria sanguinalis</i>	c <sup>+</sup>	c <sup>+</sup>
Dandelion	<i>Taraxacum officinale</i>	Nc	Pc
Dock, curly	<i>Rumex crispus</i>	Pc	Pc
Galinsoga	<i>Galinsoga parviflora</i>	c	c
Hemp	<i>Cannabis sativa</i>	c	c
Horsenettle	<i>Solanum carolinense</i>	Pc	c
Jimsonweed	<i>Datura stramonium</i>	c	c
Horseweed (marestail)	<i>Conyza canadensis</i>	Pc	c
Knotweed, prostrate	<i>Polygonum aviculare</i>	Pc	Pc
Kochia	<i>Kochia scoparia</i>	Pc <sup>+</sup>	c <sup>+</sup>
Lambsquarters, common	<i>Chenopodium album</i>	c	c
Mallow, Venice	<i>Hibiscus trionum</i>	Nc	c
Morningglory, entireleaf	<i>Ipomoea hederacea</i>	Pc	c
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	Pc	c
Morningglory, pitted	<i>Ipomoea lacunosa</i>	Pc	c
Mustard, wild	<i>Brassica kaber</i>	c	c
Nightshade, black	<i>Solanum nigrum</i>	c	c
Nightshade, Eastern black	<i>Solanum ptychanthum</i>	c	c
Nightshade, hairy	<i>Solanum sarrachoides</i>	c	c
Nutsedge, yellow	<i>Cyperus esculentus</i>	Pc	Pc
Pigweed, redroot	<i>Amaranthus retroflexus</i>	c	c
Pigweed, smooth	<i>Amaranthus hybridus</i>	c	c
Pigweed, tumble	<i>Amaranthus albus</i>	c	c
Pokeweed, common	<i>Phytolacca americana</i>	Pc	Pc
Potatoes, volunteer	<i>Solanum spp.</i>	c	c
Pusley, Florida	<i>Richardia scabra</i>	c <sup>+</sup>	c <sup>+</sup>
Ragweed, common	<i>Ambrosia artemisiifolia</i>	Pc	c
Ragweed, giant	<i>Ambrosia trifida</i>	c <sup>+</sup>	c
Sesbania, hemp	<i>Sesbania exaltata</i>	c	c
Sida, prickly (teaweed)	<i>Sida spinosa</i>	Nc	c <sup>+</sup>
Smartweed, ladythumb	<i>Polygonum persicaria</i>	c <sup>+</sup>	c
Smartweed, pale	<i>Polygonum lapathifolium</i>	c <sup>+</sup>	c
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	c <sup>+</sup>	c
Sunflower, common	<i>Helianthus annuus</i>	c	c

Thistle, canada	<i>Cirsium arvense</i>	Nc	Pc
Velvetleaf	<i>Abutilon theophrasti</i>	c	c
Waterhemp, common	<i>Amaranthus rudis</i>	C+	c
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	C+	c

^Weeds can be controlled at larger than listed sizes; however, to protect crop yield, manage weed resistance, and provide effective control, treat weeds before they reach 5" tall.

+Apply before weeds exceed 3" tall. c = control Nc = Not controlled Pc = Partial control

**Table 2. Weeds Controlled with Pre Emergence Applications of AX Mesotrione SC**

Common Name	Scientific Name	AX Mesotrione SC Applied Alone	AX Mesotrione SC + Atrazine
Amaranth, palmer	<i>Amaranthus palmeri</i>	c	c
Amaranth, powell	<i>Amaranthus powellii</i>	c	c
Amaranth, spiny	<i>Amaranthus spinosus</i>	c	c
Broadleaf signalgrass	<i>Urochloa platyphylla</i>	Pc	Pc
Buffalobur	<i>Solanum rostratum</i>	c	c
carpetweed	<i>Mollugo verticillata</i>	c	c
chickweed, common	<i>Stellaria media</i>	c	c
cocklebur, common	<i>Xanthum strumarium</i>	Pc	c
crabgrass, large	<i>Digitaria sanguinalis</i>	Pc	Pc
Galinsoga	<i>Galinsoga parviflora</i>	c	c
Jimsonweed	<i>Datura stramonium</i>	c	c
Kochia	<i>Kochia scoparia</i>	Pc	c
Lambsquarters, common	<i>Chenopodium album</i>	c	c
Morningglory, entireleaf	<i>Ipomoea hederacea</i>	Pc	c
Morningglory, ivyleaf	<i>Ipomoea hederacea</i>	Pc	c
Morningglory, pitted	<i>Ipomoea lacunosa</i>	Pc	c
Nightshade, Eastern black	<i>Solanum ptychanthum</i>	c	c
Nightshade, hairy	<i>Solanum sarrachoides</i>	c	c
Pigweed, redroot	<i>Amaranthus retroflexus</i>	c	c
Pigweed, smooth	<i>Amaranthus hybridus</i>	c	c
Pigweed, tumble	<i>Amaranthus albus</i>	c	c
Ragweed, common	<i>Ambrosia artemisiifolia</i>	c	c
Ragweed, giant	<i>Ambrosia trifida</i>	Pc	c
Smartweed, ladysthumb	<i>Polygonum persicaria</i>	c	c
Smartweed, pale	<i>Polygonum lapathifolium</i>	c	c
Smartweed, Pennsylvania	<i>Polygonum pennsylvanicum</i>	c	c
Sunflower, common	<i>Helianthus annuus</i>	Pc	c
Velvetleaf	<i>Abutilon theophrasti</i>	c	c
Waterhemp, common	<i>Amaranthus rudis</i>	c	c
Waterhemp, tall	<i>Amaranthus tuberculatus</i>	c	c

### ROTATIONAL CROP INTERVALS

If **AX Mesotrione SC** is applied according to the enclosed label instructions, follow the crop rotation intervals listed below in Table 3. If **AX Mesotrione SC** is tank mixed with other products, follow the most restrictive product's crop rotation interval.

**Table 3. Time Interval Between AX Mesotrione SC Application and Replanting/Planting of Rotational Crop**

Replant/Rotational Interval	Crop
Anytime	Asparagus, corn (all types), cranberry, Flax, Kentucky bluegrass grown for seed, Pearl Millet, Oats, Rhubarb, Ryegrass (perennial and annual) grown for seed, Sorghum (grain and sweet), Sugarcane, Tall fescue grown for seed
4 Months	Small grain cereals (wheat, barley, rye)
10 Months	Alfalfa, Blueberry, canola, cotton, currant, Lingonberry, Okra, Peanuts, Peas*, Potato, Rice, Snap Beans*, Soybeans, Sunflowers, Tobacco
18 Months	cucurbits, Dry beans, Red clover, Sugar Beets, All other crops

\*Plant these rotation crops ONLY if the criteria listed below have been met. If all criteria have NOT been met, plant peas and snap beans a minimum of 18 months following **AX Mesotrione SC** application

- A minimum of 20" of rainfall plus irrigation has occurred between application and planting of the rotational crop.
- Soil pH is >6.0.
- 3 fl. oz./A or less has been applied no later than June 30<sup>th</sup> the year preceding rotational crop planting.
- No other HPPD herbicides (e.g., **AX Mesotrione SC**, callisto® Xtra, Halex® GT, Lexar® EZ, Lumax® EZ, Zemax®, Armezon™, Balance® Flexx, capreno®, corvus®, Impact®, or Laudis®) were applied the year prior to planting peas and snap beans.
- **DO NOT** plant peas or snap beans on sand, sandy loam, or loamy sand soils in Minnesota or Wisconsin.

#### CROP USE DIRECTIONS - CORN

Apply **AX Mesotrione SC** by ground for pre emergence or post emergence weed control in field corn, seed corn, yellow popcorn, and sweet corn. Apply **AX Mesotrione SC** to corn up to 30" tall or up to the 8 leaf stage of corn growth to control broadleaf and grass weeds listed in Tables 1 and 2.

Aerial applications of **AX Mesotrione SC** can be made pre emergence or post emergence in the following states: **Alabama, Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Kentucky, Louisiana, Maine, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Jersey, New Mexico, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Tennessee, Texas, Utah, Vermont, Virginia, Washington, West Virginia, Wisconsin, and Wyoming.**

See seed company instructions for use on field corn inbred lines. Special adjuvant restrictions must be followed for post emergence applications of **AX Mesotrione SC** in yellow popcorn or sweet corn (see the **Spray Additives** section of this label). Do not apply **AX Mesotrione SC** to white popcorn or ornamental (Indian) corn.

Post emergence application of **AX Mesotrione SC** to yellow popcorn and sweet corn hybrids may cause crop bleaching. Bleach is transitory and will not affect final yield or quality. Herbicide sensitivity, however, can vary widely in yellow popcorn and sweet corn, and all hybrids of these have not been tested. Contact your local popcorn/sweet corn company, Field man, or University Specialist to learn about hybrid recommendations before making a post emergence application of **AX Mesotrione SC** to yellow popcorn or sweet corn. Do not include nitrogen based adjuvants (UAN or AMS) when making post emergence applications of **AX Mesotrione SC** to yellow popcorn or sweet corn.

Temporary transient bleaching may occur in field corn treated with **AX Mesotrione SC** post emergence under extreme weather conditions or when the crop is under stress. Field corn will quickly outgrow this condition and develop normally.

### **Corn Restrictions**

- Do not apply more than 7.7 fl. oz. (0.24 lb. mesotrione AI) of **AX Mesotrione SC** per year.
- Do not make more than 2 applications per year.
- Do not exceed 3.0 fl. oz. (0.094 lb. AI/A) in a single post emergence application.
- Do not make a second application of **AX Mesotrione SC** within 14 days of the first application.
- Do not feed or harvest forage, grain, or stover within 45 days after application.

### **AX Mesotrione SC Used Alone – Post Emergence**

Apply 3.0 fl. oz./A per application. Always add an appropriate adjuvant to the spray tank (see the **Spray Additives** section of this label).

Apply to actively growing weeds. See Table 1 for a complete list of weeds controlled. Susceptible weeds that emerge post application may be controlled after the herbicide is absorbed into the soil. **AX Mesotrione SC** will not control most grass weeds.

#### **PRECAUTIONS:**

- Applications made at rates lower than 3.0 fl. oz./A. (0.094 lb. AI/A) post emergence may not provide adequate weed control and no residual control.
- Treat corn up to 30" tall or up to the 8 leaf stage of growth.
- If mixing **AX Mesotrione SC** with atrazine, do not apply to corn taller than 12".

#### **RESTRICTIONS:**

Two post emergence applications of **AX Mesotrione SC** may be made under the following restrictions:

- Only one post emergence application may be made if **AX Mesotrione SC** has been applied pre emergence.
- Do not exceed a total of 7.7 fl. oz./A (0.24 lb. AI/A) per year.
- Do not make a second application within 14 days of the first application.
- Do not exceed a total of 6.0 fl. oz./A (0.19 lb. AI/A) for the two post emergence applications.
- If a post emergence application of **AX Mesotrione SC** was made to ground that received pre emergence treatment of another mesotrione containing herbicide, atrazine must be tank mixed with **AX Mesotrione SC**.
- Do not harvest, forage, or stover within 45 days post application.

### **AX Mesotrione SC Used Alone – Pre Emergence**

Apply 6.0 to 7.7 fl. oz./A (0.188 to 0.24 lb. AI/A) by ground sprayer in 10 to 30 gals. of water per acre to control broadleaf weeds (up to 80 gals. if applied with liquid fertilizer). See Table 2 for a complete list of weeds controlled. **AX Mesotrione SC** can be tank mixed with other approved pre emergence grass herbicides to control grasses. Refer to the tank mix section for a list of tank mix partners.

### **AX Mesotrione SC Tank Mixtures for Corn**

Apply **AX Mesotrione SC** in tank mix with other registered herbicides to improve spectrum of weed control in burndown, pre emergence, or post emergence applications. These tank mixtures can also be used to include a different mode of action herbicide to control and manage the development of resistant weed biotypes.

### **Burndown Tank Mixtures in Corn**

Apply **AX Mesotrione SC** in tank mixture with other registered herbicides for burndown and residual weed control.

Apply 3.0 fl. oz./A **AX Mesotrione SC** with Gramoxone® brands, Roundup® brands, Touchdown® brands, dicamba brands (e.g., Banvel®) and/or 2,4 D for improved broadleaf weed control with limited residual control before planting corn and before corn emergence. For better residual control, apply 6.0 to 7.7 fl. oz./A **AX Mesotrione SC** (see Table 2) with the products listed. Use the adjuvant system specified by the burndown herbicide. Refer to individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled.

**Pre Emergence Tank Mixture in Corn**

Apply 5.3 7.7 fl. oz./A of **AX Mesotrione SC** in tank mixture with other registered herbicides (Table 4) for pre emergence residual weed control. Refer to Table 2 for a list of weeds controlled by **AX Mesotrione SC** and **AX Mesotrione SC + Atrazine** applied pre emergence.

**Table 4. AX Mesotrione SC Tank Mixtures for Pre Emergence Application in Corn**

Refer to the individual product labels of the products listed for precautionary statements, restrictions, use rates, approved uses, and a list of weeds controlled.

AAtrex	Degree Xtra®	Harness Xtra® 5.6L
Bicep Lite II Magnum®	Dual II Magnum®	Keystone®
Bicep II Magnum®	Expert®	Keystone® LA
cinch®	Fultime®	Outlook®
cinch® ATZ	Guardsman Max®	Prowl®
cinch® ATZ Lite	Harness®	Surpass® Ec
Degree®	Harness Xtra®	TopNotch®

**Post Emergence Tank Mixtures in Corn**

See Table 5 below for a list of tank mixtures that can be applied after corn has emerged. Do not apply less than 3.0 fl. oz./A of **AX Mesotrione SC** unless specified on this label or on a state specific supplemental label, as a loss of residual control can occur.

Always add an appropriate adjuvant to the spray tank (See the **Spray Additives** section of this label). Refer to the individual product labels for precautionary statements, restrictions, rates, approved uses, and a list of weeds controlled. Not all of the tank mix pesticides listed are registered for use on field corn, yellow popcorn, or sweet corn.

**Table 5. AX Mesotrione SC Tank Mixtures for Post Emergence Application to Corn**

Refer to the individual product labels for products listed for precautionary statements, restrictions, use rates, approved uses, and a list of weeds controlled.

<b>Tank Mix Partner</b>	<b>Use Directions</b>
AAtrex® 4L AAtrex® Nine O®	See Table 1 for application rates and list of weeds controlled.
Primero® Primero® Sc Accent® Q	This mixture will provide additional grass control. Refer to the product label for a list of weeds controlled.
Basagran®	This mixture will provide additional broadleaf weed control. Refer to the product label for a list of weeds controlled.
Basis® Basis Gold®	This mixture will provide additional weed control. Refer to the product label for a list of weeds controlled.
Bicep II Magnum Bicep Lite II Magnum	Do not use nitrogen based adjuvants (UAN or AMS); apply as post directed spray. Do not use crop oil concentrate (COC); use a nonionic surfactant (NIS) to avoid crop injury. Control of emerged weeds can be reduced due to the adjuvant effect on weed coverage.
Butril® Moxy®	This mixture will provide additional broadleaf weed control. Add 2 lbs./gal. Butril or Moxy at up to 6 fl. oz./A. Add 4 lbs./gal. Butril at up to 3 fl. oz./A.
Expert	Use only on glyphosate tolerant corn (e.g., Agrisure® GT, Roundup Ready®), crop death will occur if this mixture is applied to a corn hybrid that is not glyphosate tolerant. Do not add urea ammonium nitrate (UAN) or methylated seed oil (MSO) adjuvants to this mixture or crop injury can occur.
Ignite® Ignite® 280 SL	Use only on corn designated as LibertyLink® or warranted as tolerant to glufosinate. Use of this mixture on corn hybrids not tolerant to glufosinate will result in severe crop injury or

	death. Do not use crop oil concentrate (cOc) as an adjuvant or crop injury can occur.
Lightning®	Use only on corn designated at clearfield® corn or warranted by BASF as tolerant to Lightning®. Use of this mixture on corn hybrids not tolerant to Lightning will result in severe crop injury or death. Do not use Methylated Seed Oil (MSO) or any MSO blend with this mixture or severe crop injury can occur.
Northstar®	This mixture will control additional weeds. See product label for list of weeds controlled.
Peak®	This mixture will control additional weeds. See product label for list of weeds controlled.
Spirit®	This mixture will control additional weeds. See product label for list of weeds controlled.
Steadfast® Steadfast® ATZ Steadfast® Q	This mixture will control additional weeds. See product label for list of weeds controlled.
Stout®	This mixture will control additional weeds. See product label for list of weeds controlled.
Touchdown Roundup Solo Glyphosate Products	Use only on glyphosate tolerant corn (e.g., Agrisure GT, Roundup Ready). Use of this mixture on corn hybrids that are not glyphosate tolerant will result in crop death. Add spray grade ammonium sulfate (AMS) at a rate that delivers 8.5 17.0 lbs. of AMS/100 gals. of water. If the glyphosate product calls for an adjuvant in addition to AMS, add 0.25 0.5% v/v (1 2 quarts/100 gallons) of a nonionic surfactant (NIS). Do not add urea ammonium nitrate (UAN), crop oil concentrate (cOc) or methylated seed oil (MSO) adjuvants to this tank mixture or crop injury can occur.

#### CROP USE DIRECTIONS – CRANBERRY

Apply **AX Mesotrione SC** to bearing or non-bearing cranberry beds to control or suppress the weeds listed in Tables 1 and 2, and:

- bog St. John's wort (*Hypericum boreala*)
- rushes (*Juncus canadensis*, *J. effuses*, *J. bufonlus*, *J. tenuis*)
- sedges spp. (*Carex* spp.)
- silverleaf (*Potentilla pacifica*)
- yellow loosestrife (*Lysimachia terrestris*)

#### Bearing/Non Bearing Application rates:

- Apply up to 8 fl. oz./A, but do not apply more than 16 fl. oz./A in total per year.
- Make no more than two 8 fl. oz./A applications per crop per year.
- If two applications are made, do not make them closer than 14 days apart. Use 1% v/v of a crop oil concentrate (COC) or 0.25% v/v nonionic surfactant (NIS).
- **DO NOT** use COC adjuvants that are known to injure cranberry leaves.
- **Nonbearing Cranberries:** Apply after the bud break stage no less than 45 days before flooding in fall or winter.
- **Bearing Cranberries:** Apply after the bud break stage no less than 45 days before flooding or harvest.

**AX Mesotrione SC** can be applied through irrigation systems (chemigation) including center pivot or solid set.

#### Sprinkler Irrigation Application – Cranberries Only

Check the irrigation system to ensure uniform application of water to all areas. Thorough coverage of foliage is required for optimal control. Maintain good agitation in the pesticide supply tank prior to and during the entire application process. Inject the specified rate of **AX Mesotrione SC** into the irrigation system with a metering device designed to introduce a constant flow and will distribute the product to target areas in 0.1 to 0.2 acre inch of water. Use the least amount of water with this rate range required for proper distribution and coverage.

After application is complete, flush the entire irrigation and injection systems with clean water before stopping the system. If application is being made during a normal irrigation set of a stationary sprinkler, the specified rate of **AX Mesotrione SC** for the area covered should be injected into the system only during the end of the irrigation set for sufficient time to provide optimal coverage and distribution.

#### **CHEMIGATION USE PRECAUTIONS – SPRINKLER IRRIGATION APPLICATION**

Apply this product through center pivot or solid set sprinkler irrigation systems only. **Do not apply this product through any other type of irrigation system.**

Non uniform distribution of treated water can cause crop injury, product ineffectiveness, and/or illegal pesticide residues in the crop. Contact your State Extension Service Specialists, equipment manufacturers or other experts if you have questions about calibrating equipment.

Do not connect an irrigation system or greenhouse system used for pesticide application to any public water system. A public water system is any system used for provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible personal shall shut the system down and make necessary adjustments should the need arise.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow. The pesticide injection pipeline must contain a functional, automatic, quick closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed solenoid operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when pressure decreases to the point where pesticide distribution is adversely affected. Systems must also use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and are capable of being fitted with a system interlock.

Any alternatives to the above required safety devices must conform to the list of EPA approved alternative devices.

#### **CHEMIGATION USE RESTRICTIONS – SPRINKLER IRRIGATION APPLICATION**

- Do not apply this product through any other type of irrigation system.
- Do not apply when wind speed favors drift beyond the area intended for treatment or non uniform distribution of treated water.
- Do not apply directly to water or areas where surface water is present outside the bog system.
- Do not contaminate water when disposing of equipment washwater or rinsate.
- Do not apply within 10 feet of surface water outside the bog system.
- Do not spray to runoff.
- Do not connect an irrigation system or greenhouse system used for pesticide application to any public water system. A public water system is any system used for provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible personal shall shut the system down and make necessary adjustments should the need arise.

### **CROP USE DIRECTIONS – SORGHUM (GRAIN and SWEET) Pre Emergence Application Directions**

Make pre emergence application of **AX Mesotrione SC** or pre plant non incorporated applications up to 21 days before planting sorghum for control or partial control of the weeds listed in Table 2.

Apply 6.0 to 6.4 fl. oz./A broadcast non incorporated application prior to sorghum emergence. Making the application less than 7 days before planting will increase the risk of plant injury, especially if rainfall or irrigation occurs after the application. Injury symptoms include temporary bleaching of newly emerged leaves. Making application of this product 8 to 21 days prior to planting will decrease risk of crop injury.

If **AX Mesotrione SC** is applied prior to planting, minimize disturbance of soil treated with herbicide during the planting process in order to reduce the potential for weed emergence.

If emerged weeds are present at the time of pre emergence application, use 0.25% v/v of a nonionic surfactant (NIS) adjuvant or 1% v/v of crop oil concentrate (COC) and add it to the spray solution. A spray grade UAN applied at a rate of 2.5% v/v or 8.5 lb./100 gallons of spray solution of ammonium sulfate (AMS) can be added to the spray solution in addition to the COC or NIS.

#### **Pre Emergence Application Restrictions**

- Do not apply more than 6.4 fl. oz./A per year.
- Do not apply to emerged sorghum or severe crop injury can occur.
- Do not use **AX Mesotrione SC** in the production of forage sorghum, sudangrass, sorghum sudangrass hybrids, or dual purpose sorghum.
- Do not apply to sorghum that is grown on coarse textured soils (e.g., sandy loam, loamy sand, sand).
- **Texas restriction:** Do not apply to sorghum grown south of Interstate 20 (I 20) or east of Highway 277.

#### **Post Emergence Application Directions**

Apply **AX Mesotrione SC** post directed to grain sorghum to control and/or partially control weeds listed in Table 1. Apply to actively growing weeds for optimal control.

Apply 3.0 fl. oz./A post directed application when sorghum is at least 8" tall. Make the application by directing the spray between crop rows, and toward the base of the plant. Direct application of **AX Mesotrione SC** onto foliage can result in crop injury including temporary bleaching. If leaves do bleach, newly emerged leaves following application will not be affected.

Use 0.25% v/v of a nonionic surfactant (NIS) adjuvant or 1% v/v of crop oil concentrate (COC) and add it to the spray solution. A spray grade UAN applied at a rate of 2.5% v/v or 8.5 lb./100 gallons of spray solution of ammonium sulfate (AMS) can be added to the spray solution in addition to the COC or NIS.

**AX Mesotrione SC** can be tank mixed with herbicides registered for use on sorghum to improve weed control. These tank mixtures can also include a herbicide with a different mode of action to help control or manage the development of resistant weed biotypes.

#### **Post Directed Restrictions**

- Do not make more than one post directed application.
- Do not apply more than 3.0 fl. oz./A post directed.
- Do not apply more than 6.4 fl. oz./A per year.
- Do not apply broadcast over the top to emerged sorghum or severe crop injury can occur.
- Do not harvest sorghum for forage for 30 days following application.
- Do not harvest for grain or stover for 60 days following application.
- Do not apply after the sorghum seedhead emerges.
- Do not use in the production of forage sorghum, sudangrass, or sorghum sudangrass hybrids.

## CROP USE DIRECTIONS - SUGARCANE

Apply **AX Mesotrione SC** by ground for pre emergence, post emergence over the top or post emergence direct weed control in sugarcane.

Apply **AX Mesotrione SC** aerially for pre emergence and post emergence weed control in the states of: **Florida, Louisiana, and Texas.**

### Pre Emergence Applications

Apply 6.0 to 7.7 fl. oz./A of **AX Mesotrione SC** to control weeds listed in Table 2. Make application after the planting of plant cane or after harvest of ratoon cane. If weeds are emerged at the time of application, add a crop oil concentrate (COC) type adjuvant at 1% v/v OR a nonionic surfactant (NIS) type adjuvant at 0.25% v/v to the spray solution. In addition to the COC or NIS, a spray grade UAN at a rate of 2.5% v/v OR ammonium sulfate (AMS) at a rate of 8.5 lbs./100 gals. of spray solution can be added to the spray solution. Tank mix AAtrex® or Evik® with **AX Mesotrione SC** to improve weed control. Refer to the tank mix partner label for specific rates and use directions.

### Post Emergence Applications

Apply 3.0 fl. oz./A of **AX Mesotrione SC** to control weeds listed in Table 1. Apply as a post over the top or as a post directed spray to the base of the sugarcane. If a pre emergence application was made earlier in the season, only one single post emergence application can be made. If no pre emergence application was made earlier in the season, then both a post over the top and a post directed spray application can be made. For optimum weed control, apply to actively growing weeds.

Add either a crop oil concentrate (COC) adjuvant at 1% v/v OR a nonionic surfactant (NIS) adjuvant to the spray solution. In addition to the COC or NIS, use a spray grade UAN (e.g., 28 0 0) at 2.5% v/v OR ammonium sulfate (AMS) at 8.5 lbs./100 gals. of spray solution to improve weed control.

For additional post emergence weed control, tank mix **AX Mesotrione SC** with atrazine, Asulox® and/or Evoke®. Refer to the tank mix product label for specific rate and use directions.

### Sugarcane Restrictions:

- Do not apply more than 7.7 fl. oz./A in a pre-emergence application.
- Do not apply more than 3.0 fl. oz./A in a post emergence application.
- Do not make more than 2 applications per year. If a pre emergence application is made, only one post emergence application can be made.
- Do not make two applications less than 14 days apart.
- Do not apply more than 10.7 fl. oz./A per year.
- Do not harvest sugarcane within 114 days following a post over the top treatment (114 day PHI).
- Do not harvest sugarcane with 100 days following a post directed application (100 day PHI).

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage and disposal.

**Pesticide Storage:** Keep container tightly closed when not in use. Keep away from heat and flame. Do not store near seed, fertilizers, or foodstuffs. Can be stored at temperatures as low as minus 20°F. Keep away from heat and flame. **Pesticide Disposal:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Open dumping is prohibited.

**Container Handling ≤ 5 Gallons:** Non refillable container. Do not reuse or refill this container. Offer for recycling if available. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into formulation equipment. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into formulation equipment or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. **Container Handling ≥ 5 Gallons:** Refillable container. Refill this container with pesticide only. Do not use this container for any other purpose. cleaning the container before final disposal is the responsibility of the person disposing of the container. cleaning before refilling is the responsibility of the person refilling. To clean container before final disposal, empty the remaining contents from this container into application equipment or mixt tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes.

Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY

NOTICE: Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

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